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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,172	09/12/2003	**Ivan N. Wakefield**	U030031.45	2171

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MOORE & VAN ALLEN PLLC
P.O. BOX 13706
Research Triangle Park, NC 27709

EXAMINER	
LE, TUAN H	

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/605,172	WAKEFIELD, IVAN N.	
	Examiner	Art Unit	
	TUAN H. LE	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,7-13,15-24,32-38,40-42,48-52 and 54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,7-13,15-24,32-38,40-42,48-52 and 54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/7/09 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5, 7-13, 15-24, 32-38, 40-42, 48-52, and 54 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter. **Claims 48-52, 54** set forth a "computer readable medium." However, the specification as originally filed makes no mention of a computer readable medium beside electronic, magnetic or optical, and is also silent as to what elements are considered to be encompassed by a computer readable medium. Since the specification as originally filed provides no definition of what encompasses the claimed computer readable medium, the examiner maintains that the claimed computer readable medium encompasses both

statutory subject matter (e.g. disc, tape, RAM, ROM) as well as non-statutory subject matter (e.g. signal or carrier wave), thereby necessitating the rejection of **claims 48-52, 54** under 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1/ Claims 1-3, 5, 7-13, 15-24, 32-38, 40-42, 48-52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta (U.S. Pub. 2003/0076408) in view of Lev (US 2002/0102966 to Lev et al) and further in view of Bushey (US 7,245,404).

Regarding **claim 1**, Dutta discloses a device for communication (Dutta, Fig. 1, Fig. 2, and Fig. 3), comprising:

an optical sensor (204) to capture an image; and

a processor (304), the processor configured to automatically identify a plurality of possible classes of data in the image by decoding and analyzing pixels in the image, the processor identifying a class of data in the image of the plurality of classes of data and automatically performing a predetermined function associated with the class of data including performing commands contained in the image in response to the class of data being identified in the image, each of the plurality of possible classes of data having an

associated predetermined function (Dutta, Fig. 3, paragraph [0023], wherein a captured image is converted into text by an optical character recognition OCR program),

wherein the predetermined function comprises decoding data from one or more images (Dutta, Fig. 3, Fig. 5, paragraph [0023], wherein a captured image is converted into text including at least internet addresses -URLs- by an optical character recognition OCR program and the addresses are used to browse the internet).

wherein the plurality of possible classes of data comprise data visible to a human eye and data unintelligible to a human eye (Dutta, Fig. 3 and paragraph [0025], wherein the object for the camera module can be text or bar code).

However, Dutta does not disclose

at least one of subliminal data, data formed using steganography, or watermarking.

On the other hand, Lev discloses

at least one of subliminal data, data formed using steganography, or watermarking (Lev, paragraphs [0007], [0025], [0034], and [0096], wherein portable devices are equipped with an imaging device and computational engine for performing OCR, barcode, or watermark analysis on a captured image).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the watermark analysis as described by Lev into the communication device as described by Dutta so as to identify an object in a captured image because such incorporation allows user equipped with the portable

wireless imaging device to be able to obtain information and services related to captured objects (Lev, paragraph [0021]).

However, Dutta and Lev do not disclose

to reprogram a communication device.

On the other hand, Bushey disclose

to reprogram a communication device (Bushey, Fig. 1, column 2 lines 25-62, wherein the image capture appliance (ICA) can be reprogrammed to perform various functions comprising OCR, raster-to-vector conversion, photo restoration, photo-finishing, framing, etc by downloading from the web corresponding executable codes).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the reprogramming as described by Bushey into the device as described by Dutta and Lev so as to reprogram a communication device because such incorporation saves manufacturing costs by reducing the amount of read only memory, optimally maintains the communication device by regular software updates, and improves performance by adding new functionality to the communication device (Bushey, column 2 lines 25-62).

Regarding **claim 2**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Dutta discloses the optical sensor comprises one of a charge coupled device, a complimentary metal oxide semiconductor (CMOS) and a camera (Dutta, Fig. 3 and paragraph [0018]).

Regarding **claim 3**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Dutta discloses a data structure including computer-executable instructions

executable by one of the optical sensor and the processor to decode pixels in the image to identify or select the class of data (Dutta, Fig. 3 wherein software 318 includes a data structure).

Regarding **claim 5**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Dutta discloses a display (104) to display at least one of the image and the class of data (Dutta, Fig. 1 and paragraph [0015]).

Regarding **claim 7**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Dutta discloses the plurality of possible classes of data comprise at least one of a phone number, a list of phone numbers, a bar code, access information to a web site, a sequence of commands, and information associated with a product or service (Dutta, paragraphs [0023] and [0025], wherein bar code, text, web address, phone number are disclosed and accessed).

Regarding **claim 8**, Dutta, Lev, and Bushey disclose the device of claim 7. In addition, Dutta discloses the sequence of commands comprises commands to be performed automatically by a communication device (Dutta, Fig. 1 and paragraph [0023], wherein the mobile phone automatically can initiates a call given a decoded phone number).

Regarding **claim 9**, Dutta, Lev, and Bushey disclose the device of claim 8. In addition, Dutta discloses the communication device comprises a cellular telephone (Dutta, Fig. 1).

Regarding **claim 10**, Dutta, Lev, and Bushey disclose the device of claim 7. In addition, Dutta discloses the sequence of commands comprises commands to be

performed by a communication device in response to a password (Dutta, paragraph [0023], wherein sending an requires an password).

Regarding **claim 11**, Dutta, Lev, and Bushey disclose the device of claim 10. In addition, Dutta discloses the communication device comprises a cellular telephone (Dutta, Fig. 1).

Regarding **claim 12**, Dutta, Lev, and Bushey disclose the device of claim 10. In addition, Dutta discloses at least one of a user interface and a voice recognition function to enter the password (Dutta, Fig. 1 and paragraph [0015], wherein keyboard 112 is used).

Regarding **claim 13**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Dutta discloses the optical sensor (204) is operable to capture the image from one of a television, a video monitor, and a fixed medium (Dutta, abstract, wherein an object is in low light condition).

Regarding **claim 15**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Lev discloses transmitting a signal to order a product or service comprises sending one of a short message service (SMS) message, email message, or voice or data message, each including information associated with a purchaser (Lev, Fig. 2, wherein user talks to sales person and the portable phone number is associated with the user).

Regarding **claim 16**, Dutta, Lev, and Bushey disclose the device of claim 1. In addition, Dutta discloses a user interface (112) to at least one of select the class of data from the image, edit the class of data, store the class data and transmit the class of data

(Dutta, Fig. 1 and paragraphs [0015] and [0023], wherein information of the captured image is sent from the mobile phone).

Regarding **claim 17**, Dutta discloses a device for communication (Dutta, Fig. 1, Fig. 2, and Fig. 3), comprising:

an optical sensor (204) to capture an image;

a processor (304), wherein a data structure operable in association with one of the optical sensor, the processor and a mobile system includes computer-executable instructions capable of automatically identifying a plurality of possible classes of data in the image by decoding and analyzing pixels in the image, the computer-executable instructions identifying a class of data in the image of the plurality of possible classes of data (Dutta, Fig. 3, paragraph [0022], wherein software 318 is used for processing capture image);

another data structure operable in association with the processor (304) to automatically perform a predetermined function associated with the class of data including performing commands contained in the image in response to the class of data being identified in the image, each of the plurality of possible classes of data having an associated predetermined function (Dutta, Fig. 3, paragraph [0023], wherein for corresponding identified data, the device initiates a telephone call, browses internet, and sends e-mail message); and

a transmitter (106) to transmit signals in response to the class of data (Dutta, Fig. 1, paragraph [0015], wherein transmission of data is performed),

wherein the predetermined function comprises decoding data from one or more images (Dutta, Fig. 3, Fig. 5, paragraph [0023], wherein a captured image is converted into text including at least internet addresses -URLs- by an optical character recognition OCR program and the addresses are used to browse the internet).

wherein the plurality of possible classes of data comprise data visible to a human eye and data unintelligible to a human eye (Dutta, Fig. 3 and paragraph [0025], wherein the object for the camera module can be text or bar code).

However, Dutta does not disclose

at least one of subliminal data, data formed using steganography, or watermarking.

On the other hand, Lev discloses

at least one of subliminal data, data formed using steganography, or watermarking (Lev, paragraphs [0007], [0025], [0034], and [0096], wherein portable devices are equipped with an imaging device and computational engine for performing OCR, barcode, or watermark analysis on a captured image).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the watermark analysis as described by Lev into the communication device as described by Dutta so as to identify an object in a captured image because such incorporation allows user equipped with the portable wireless imaging device to be able to obtain information and services related to captured objects (Lev, paragraph [0021]).

However, Dutta and Lev do not disclose

to reprogram a communication device.

On the other hand, Bushey disclose

to reprogram a communication device (Bushey, Fig. 1, column 2 lines 25-62, wherein the image capture appliance (ICA) can be reprogrammed to perform various functions comprising OCR, raster-to-vector conversion, photo restoration, photo-finishing, framing, etc by downloading from the web corresponding executable codes).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the reprogramming as described by Bushey into the device as described by Dutta and Lev so as to reprogram a communication device because such incorporation saves manufacturing costs by reducing the amount of read only memory, optimally maintains the communication device by regular software updates, and improves performance by adding new functionality to the communication device (Bushey, column 2 lines 25-62).

Regarding **claim 18**, Dutta, Lev, and Bushey disclose the device of claim 17. In addition, Dutta discloses the data structure operable in association with one of the optical sensor, the processor and the mobile system includes computer-executable instructions executable by one of the optical sensor, the processor and the mobile system to decode pixels in the image to identify or select the class of data (Dutta, Fig. 3, paragraph [0022], wherein software 318 is used for processing capture image and includes a data structure).

Regarding **claim 19**, Dutta, Lev, and Bushey disclose the device of claim 17. In addition, Dutta discloses a storage device (306) to store at least one of the image and the class of data (Dutta, Fig. 3).

Regarding **claim 20**, Dutta, Lev, and Bushey disclose the device of claim 17. In addition, Dutta discloses a display (104) to display at least one of the image and the class of data (Dutta, Fig. 1 and paragraph [0015]).

Regarding **claim 21**, Dutta, Lev, and Bushey disclose the device of claim 20. In addition, Dutta discloses at least one function button to select the class of data from the image (Dutta, Fig. 1 and paragraph [0015], wherein keyboard 112 is used).

Regarding **claim 22**, Dutta, Lev, and Bushey disclose the device of claim 21. In addition, Dutta discloses a pointing device to select the class data from the image (Dutta, Fig. 1 and paragraph [0015], wherein inherent part of keyboard 112 is used).

Regarding **claim 23**, Dutta, Lev, and Bushey disclose the device of claim 17. In addition, Dutta discloses a user interface to at least one of select the class data from the image, edit the class of data, store the class of data and transmit the class of data (Dutta, Fig. 1 and paragraph [0015], wherein keyboard 112 is used).

Regarding **claim 24**, Dutta, Lev, and Bushey disclose the device of claim 17. In addition, Dutta discloses the class of data comprises at least one of a phone number, a list of phone numbers, access information to a web site, a sequence of commands, and information associated with a product or service (Dutta, paragraph [0023]).

Regarding **claim 32**, the same ground of rejection as in claim 1 is applied.

Regarding **claim 33**, Dutta, Lev, and Bushey disclose the device of claim 32. In addition, Dutta discloses decoding pixels in the image to identify or select the class of data (Dutta, paragraph [0023], wherein OCR program is used).

Regarding **claim 34**, same ground of rejection as in claim 5 is applied.

Regarding **claim 35**, same ground of rejection as in claim 7 is applied.

Regarding **claim 36**, same ground of rejection as in claim 8 is applied.

Regarding **claim 37**, same ground of rejection as in claim 10 is applied.

Regarding **claim 38**, same ground of rejection as in claim 12 is applied.

Regarding **claim 40**, same ground of rejection as in claim 15 is applied.

Regarding **claim 41**, Dutta, Lev, and Bushey disclose the method of claim 32. In addition, Dutta discloses retrieving purchaser information from a data source in response to transmitting a signal to order a product or service, (Lev, Fig. 2, wherein, the portable phone number associated with the purchaser is retrieved).

Regarding **claim 42**, same ground of rejection as in claim 16 is applied.

Regarding **claim 48**, the same ground of rejection as in claim 17 is applied.

Regarding **claim 49**, Dutta, Lev, and Bushey disclose the computer readable-medium of claim 48. In addition, Dutta discloses decoding pixels in the image to identify or select the class of data (Dutta, Fig. 3, paragraphs [0022] and [0023], wherein OCR program is used).

Regarding **claim 50**, the same ground of rejection as in claim 24 is applied.

Regarding **claim 51**, the same ground of rejection as in claim 18 is applied.

Regarding **claim 52**, Dutta, Lev, and Bushey disclose the computer readable-medium of claim 50. In addition, Dutta discloses performing the sequence of commands in response to a password (Dutta, paragraph [0023] wherein a password is associated with at least the email-message).

Regarding **claim 54**, Dutta, Lev, and Bushey disclose the computer readable-medium of claim 48. In addition, Dutta discloses transmitting a signal to order a product or service comprises sending one of a short message service (SMS) message, an email message, or a voice or data message, each including information associated with a purchaser, (Dutta, paragraph [0023], wherein information of a user is associated with the mobile phone).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN H. LE whose telephone number is (571)270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan H Le/
Examiner, Art Unit 2622

/Jason Chan/
Supervisory Patent Examiner, Art Unit 2622